

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior listings and versions thereof.

1-29. (Cancelled).

30. (New) A method for proliferating a hepatitis C virus comprising the steps of:
providing a radial flow bioreactor which contains in a culture vessel as a main body thereof a porous carrier carrying an immobilized human hepatocyte thereon, which bioreactor can generate a continuous stream of a culture medium in radial direction in said vessel;

infecting said human hepatocyte with a hepatitis C virus, an infectious clone RNA thereof, or a combination thereof;

culturing said human hepatocyte by maintaining a stream of the culture medium in radial direction in said vessel, thereby proliferating the hepatitis C virus in said human hepatocyte,

wherein said infection of hepatitis C virus is carried out by adding hepatitis C virus to said culture medium, and said method further comprises the following steps: circulating the culture medium without supplying fresh medium after adding hepatitis C virus into said culture medium; stopping circulation of the culture medium; and circulating the culture medium without supplying fresh medium.

31. (New) A method for proliferating a hepatitis C virus comprising the steps of:
providing a radial flow bioreactor which contains in a culture vessel as a main body thereof a porous carrier carrying an immobilized human hepatocyte thereon, which bioreactor can generate a continuous stream of a culture medium in radial direction in said vessel;

infecting said human hepatocyte with a hepatitis C virus, an infectious clone RNA thereof, or a combination thereof;

culturing said human hepatocyte by maintaining a stream of the culture medium in radial direction in said vessel, thereby proliferating the hepatitis C virus in said human hepatocyte,

wherein said infection of hepatitis C virus is carried out by adding hepatitis C virus to said culture medium, and said method further comprises the step of increasing a supply rate of fresh medium and a supply rate of oxygen before adding hepatitis C virus to said culture medium.

32. (New) The method according to any one of claims 30 or 31, wherein the carrier is a particulate porous carrier.

33. (New) The method according to any one of claims 30 or 31, wherein the human hepatocyte is of an established cell line.

34. (New) The method according to claim 33, wherein the established cell line is the FLC-4 line (FERM BP-5165).

35. (New) The method according to any one of claims 30 or 31, wherein the human hepatocyte proliferates in three dimensions.